

The essay before us, contains unquestionably many very judicious and interesting hints; its main defect is, that the author deals too much in general statements, in support of which he has neglected to adduce a sufficient array of apposite facts. In more than one instance we find him drawing his most important deductions from pathological as well as physiological opinions, the accuracy of which will admit of very considerable doubt.

The reference of certain of the disordered conditions of respiration to an normal state of the respiratory nerves, is by no means original with our author. Several of the Continental physicians had already adverted to the fact, and have pointed out the dependence upon disease of those nerves of many affections simulating in their phenomena, organic disease of the heart, lungs, and other thoracic viscera, the removal of which, they insist, is only to be effected by restoring the nerves of respiration to their normal state. D. F. C.

---

ART. XVI. *The Epidemic Yellow Fever of Natchez. 'In medio veritas.'* An Essay read before the Jefferson College and Washington Lyceum, Dec. 2, 1837. By J. W. MONETTE, M. D. Natchez, 1838. 12mo. pp. 83.

The title of this work does not convey a strictly correct idea of its contents. The account of the epidemics of yellow fever which occurred in Natchez in the years 1817, 1819, 1823, 1825, 1829, and 1837 occupying but twenty-six pages, while the remainder of the Essay is devoted to an exposition of the author's views in relation to the general cause by which yellow fever is produced,—the circumstances connected with the occurrence of the disease in Natchez, being adduced merely as corroboratory of those views.

The space left at our disposal will not permit us to enter into an examination of the very important points embraced in the Essay of Dr. Monette, nor to test the accuracy of his views by the vast accumulation of well attested facts we now possess in reference to the rise and progress of yellow fever in our own and other countries—we shall merely lay before our readers an outline of these views as nearly as possible in the author's own words, leaving each one to determine for himself their correctness.

According to Dr. Monette, the immediate cause of yellow fever as an epidemic, is a subtle, gaseous poison in the atmosphere,—how this poison is generated, or from what it is thrown off, we have no certain knowledge.

To produce yellow fever as an epidemic, he conceives that there exist three grades or stages of action in the production of the infection:—first, the miasm, or simple basis, which alone is innocent. Second, Its combination with impure, or exhausted air, or with air deprived of its healthy, respiratory properties, and charged with animal exhalations: in this state he denominates it *infectious air*, or malaria. In this state, it is a strong predisposing cause of disease, and a suitable *nidus* for the reception and extension of personal infection. Third, Infection, or the union of personal infection with infectious air. In this state, it is an aerial ferment, and when respired, becomes the active, predisposing, and exciting cause of yellow fever. The *miasm* of yellow fever, he considers to be

“A subtle, gaseous, invisible, and inodorous matter, generated by the action of the sun, or by solar heat, upon the *atmosphere*, independently of any effluvia or fetor from the decomposition of animal matters, and independently of any exhalation from marshes, dry earth, or vegeto-animal compounds, or any thing of those kinds.”

He believes it to be “the result of some unknown combination of the solar rays with the atmosphere, which takes place at all times and in all places, while the temperature in the shade is steadily between 88° and 98° of Fahrenheit, or between 110° and 130° in the open sun: that its specific gravity is much greater than that of common air, and that it possesses the common properties of aerial fluids.”

In its simple state this miasm is innocuous, but it becomes morbid by combination with impure air.

"This combination, when not concentrated, or when moderately diluted with free air, conveys a very slight predisposition to yellow fever; but when concentrated by close sultry weather, in a dense population, the predisposition will be so strong that sporadic cases, under *highly exciting* causes, will occur,—especially among strangers, and those who are unacclimated. Those who are acclimated will escape."

"So long as there is sufficient agitation and change of the air by winds, the miasm will not accumulate in sufficient quantity to produce yellow fever as an epidemic; but when sufficient miasm is produced and accumulated, the malarious combination, which likewise requires several days of calm, sultry weather, will proceed at a still lower temperature."

"This malarious condition of the local atmosphere of any city, or portion of a city, may be so concentrated as to produce a strong predisposition to yellow fever in many of the inhabitants, without actual disease, until a few cases are excited into action by highly exciting causes, when *infection* is generated, and speedily the malarious district becomes the infected district, which result would have been prevented by a storm, or change of weather previous to those cases."

"When the malarious combination is sufficiently concentrated for this purpose, a large quantity of *infected air*, brought from an infected district, or a large number of cases of yellow fever introduced from another point, will convert that malaria into infected air, and produce an epidemic likewise."

"Infected air is supposed to be more volatile than *miasm*, to be volatilized by the sun, and partially condensed in the cool dews of night: hence when there is much infection in the air it may be more dangerous to be out at night, than in meridian day."

"The infection insinuates itself into blankets, feather beds, woollens, and other porous articles, and in this way may be carried from one place to another. But the infected air thus transported will produce the disease only in those who breathe it before it is diluted with common air: it might spread when taken into a close room and kept in stagnant warm air."

"Like *miasm* it is heavier than common air; and settles in low damp places."

"It is supposed to adhere, in some manner, to wood and such like bodies, especially, more than to brick, stone, plaster, &c."

"Although yellow fever is very often a disease of local origin, it *may*, under peculiar circumstances, be carried from one city to another, and there propagated."

"Accordingly epidemic yellow fever may be averted sometimes by one or all of the following measures, enforced at a time, when, according to the principles set forth, the malaria is forming rapidly, viz:—

"1. By a dispersion of the greater portion of the citizens to the country.

"2. By removing from the city, and especially from the districts usually infected, all *strangers*, or those who have not become acclimated by a residence of two or three years, and who would in course be the first attacked.

"3. By prohibiting the introduction from foreign places of infected air, or *fomites*, or patients labouring under yellow fever, during the prevalence of malarious accumulations.

"The vicinity of any of the large bayoux, or gullies, about Natchez, is more dangerous as a residence than more remote points: these ravines are the reservoirs in which the malaria mostly accumulates before it is dispersed through the city by gentle winds: of course persons should avoid them in the sultry, autumnal months.

"When the infection has spread, or is beginning to spread, the only safety for those who are strangers, or unacclimated to yellow fever infection, is speedy flight: for no disinfecting agents heretofore known, or tried, possess any power to destroy the infection of yellow fever in the general air, cold alone excepted.

"Those who seek safety in flight, should carry with them as few bulky, light articles, of a woollen or porous texture as practicable, lest they might generate an infected air in their retreat. They should not return to their houses until after cold winds and frosts, during which their rooms, bedding, &c. have been freely exposed to circulation and to the action of the frost."

D. F. C.